PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 26 MAY 2006
WIPO PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)* see form PCT/ISA/210 (second sheet)	
Applicant's or agent's file reference see form PCT/ISA/220	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/IB2005/050302	25.01.2005	27.01.2004

International Patent Classification (IPC) or both national classification and IPC
INV. G06F9/50 G06F9/48

Applicant
KONINKLIJKE PHILIPS ELECTRONICS, N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:	Authorized Officer
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Ross, C Telephone No. +49 89 2399-7787

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

   ☐ a sequence listing

   ☐ table(s) related to the sequence listing

   b. format of material:

   ☐ in written format

   ☐ in computer readable form

   c. time of filing/furnishing:

   ☐ contained in the international application as filed.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 9-13, 15, 18-19

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination *(specify)*:

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. are so unclear that no meaningful opinion could be formed *(specify)*:

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the whole application or for said claims Nos. 9-13, 15, 18-19

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form	☐	has not been furnished
	☐	does not comply with the standard
the computer readable form	☐	has not been furnished
	☐	does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:

   ☐ paid additional fees.

   ☐ paid additional fees under protest.

   ☒ not paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is

   ☐ complied with

   ☒ not complied with for the following reasons:

   see separate sheet

4. Consequently, this report has been established in respect of the following parts of the international application:

   ☐ all parts.

   ☒ the parts relating to claims Nos. 1-8, 14, 16-17

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	
	No:	Claims	1,4,5,7,14,16-17
Inventive step (IS)	Yes:	Claims	
	No:	Claims	2,3,6,8
Industrial applicability (IA)	Yes:	Claims	1-8, 14, 16-17
	No:	Claims	

2. Citations and explanations

   see separate sheet

Re Item IV.

The separate inventions/groups of inventions are:

1-8, 14, 16-17 (group 1)
Decomposing tasks for distributed processing in parallel on remote nodes. Each node indicates availability for processing based on various conditions, for example CPU running idle. Processing time estimated and used for time-out function at distributing node.
9-10, 15 (group 2)
Decomposing tasks into jobs for distributed processing on remote nodes. Each node indicates availability for processing. Critical jobs distributed to several nodes for redundancy.
11-13, 18-19 (group 3)
Logging, for each participating system, of the amount of resources devoted to distributed processing. Logging performed centrally by distributing unit. Used to provide a reward scheme.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

The non-unity of the application has become apparent à-posteriori, i.e. after having taken the prior art into consideration (see PCT Guidelines, section 10.08).

The only features the three groups of claims have in common are the decomposing of tasks into jobs for distributed processing on remote nodes, where each node indicates availability for processing, the subject-matter of claim 1. However, this is known from or US2003005068 (see citations in the search report) or from US6009455, columns 3-7, in particular column 3, lines 60-61 and 64 and column 4, lines 21-23.

The common features therefore cannot be considered as special technical features in terms of Rule 13.2 PCT, since they make no contribution over the prior art.

The potential remaining special technical features of the above groups of claims are not identical, nor do they correspond, since they are based on three different concepts:

Group 1 solves the problem of determining remote processing nodes available for processing part of a partitionable task.

Group 2 solves the problem of increasing reliability in distributed processing, in particular increasing the predictability of task completion times.

Group 3 solves the problem of keeping track of the resources expended on distributed processing in a secure way so that logging information cannot be tampered with by participating entities.

Thus the application lacks a single general inventive concept (Rule 13.1 PCT).

Therefore, the application relates to a groups of inventions which lack unity required by Rule 13.1, PCT.

Re Item V.

1 Reference is made to the following documents:

D1 : US 6 009 455 A (DOYLE ET AL) 28 December 1999 (1999-12-28)
D2 : US 2003/005068 A1 (NICKEL RONALD H ET AL) 2 January 2003 (2003-01-02)

2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 and 14 are not new in the sense of Article 33(2) PCT.

2.1 Using the wording of claim 1, document D1 discloses (the references in parentheses applying to this document):

a method for processing a large programming task by a plurality of remote product devices of a product manufacturing entity, the method comprising the acts of (see D1, column 1, lines 5-8):

decomposing, at a main processor (server) of said product manufacturing entity, said large programming task into a plurality of work tasks; and (D1, column 5, lines 16-17)

receiving requests from said remote product devices for said work tasks (D1, column 3, lines 60-61 and 64);

distributing said work tasks to said product devices (D1, column 6, lines 19-20), responsive to said received requests (D1, column 4, lines 21-23);

receiving work task results from said product devices; and (D1, column 6, lines 59-60)

combining said work task results at said main processor (server) (D1, Figure 2e, (23))to yield an overall processing result of said large programming task (D1, column 7, lines 15-25).

2.2 Since all the features of claim 1 are known in combination from document D1, the subject-matter of the claim is not new.

2.3 Claim 14 pertains to a system and has all corresponding features of method claim 1, and additionally the feature of a database for storing the product device capability data for each of said plurality of remote product devices, which is disclosed in D1, column 4 lines 1-10, (along with column 4, lines 18-20 and lines 22-25 implicitly and unambiguously disclosing the database).

2.4 Since all the features of claim 14 are known in combination from document D1, the subject-matter of the claim is not new.

3 The dependent claims do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step.

3.1 Claims 2 and 3 are concerned with the time-out behaviour of the distributed

processing method. This particular solution is obvious for the skilled person due to the combination of document D1, column 7, lines 8-12 and column 6, lines 8-10, and document D2, column 4, lines 56-57 and lines 63-65.

Document D2 is a further disclosure addressing the problem of making use of idle processing power in distributed task processing.

3.2 The details of claim 4 and 5 regarding polling the server are already known from D1, column 3, lines 55-61.

3.3 The additional details regarding the polling frequency given in claims 6 and 19 are rendered obvious by D1, column 3, lines 52-55.

3.4 The additional features of claim 7 are already known from D1, column 4, lines 21-25.

3.5 The additional features of claim 8 (particular way of retrieving product device's capabilities, etc) is obvious regarding D1, column 4, lines 1-10.

3.6 The additional subject-matter of claims 16-17 is already covered by the passages cited for claim 1.